

# FY 2000 Secretary of Defense Environmental Security Awards



Vast Landscapes and Diverse Terrain



Precious Natural Resources



Skilled Soldiers



**Army Nomination for  
Natural Resources Conservation  
Large Installation**

## U.S. Army Alaska

## Introduction

US Army Alaska (USARAK) is custodian of the country's largest block of public land withdrawn for military training. With Forts Wainwright and Greely in Alaska's interior and Fort Richardson in the south-central region, USARAK enjoys a full representation of Alaska's unique natural resources and environmental conditions. Its "Arctic Warriors" train in one of the most rugged and beautiful places on earth.



US Army Alaska's "Arctic Warriors"

USARAK is composed of 5,878 "Arctic Warriors," supported by 2,909 civilian employees. From airborne operations to glacier training, arctic soldiers receive the most demanding and rigorous training available. USARAK's mission is as follows:

- train and equip forces to deploy rapidly in support of combat operations and other operations worldwide;
- conduct operations in cold regions and mountainous terrain;
- serve as the land force component for joint operations in Alaska; and
- provide installation support.

Command priorities are combat readiness, quality of life, community relations, and environmental stewardship.

USARAK is committed to maintaining the integrity of Alaska's spectacular environment. During 1998–2000, *environmental stewardship* was designated as a command priority, providing a legacy for tomorrow's Army in Alaska.

**Table 1. U.S. Army Alaska Terrain Characteristics<sup>[0]</sup>**

Location	Size	Wetlands	Forest	Lakes	Streams	Coastline
Fort Greely	662,000 ac	398,223 ac	159,000 ac	8,758 ac	1,540 miles	0
Fort Richardson	62,000 ac	5,917 ac	43,000 ac	980 ac	113 miles	10 miles
Fort Wainwright	915,000 ac	641,191 ac	375,000 ac	3,658 ac	1,745 miles	0
<b>Installation Total</b>	<b>1,639,000 ac</b>	<b>1,042,000 ac</b>	<b>577,000 ac</b>	<b>13,400 ac</b>	<b>3,400 miles</b>	<b>10 miles</b>

## Background

### Where We Were

As recently as 1995, USARAK had no Integrated Natural Resource Management Plan (INRMP), no planning level surveys completed or funded, only six natural resources staff, little or no cooperation with



the Bureau of Land Management (BLM), minimal conservation funding, and little command emphasis on natural resources management. Wetlands were a significant restriction to training, and use of Eagle River Flats Impact Area at Fort Richardson was restricted due to white phosphorus contamination. The prognosis for natural resources conservation appeared bleak.

## On the Path to Excellence

USARAK met its challenges head on. In 1999, the INRMP was completed. Planning level surveys for all 1.639 million acres have been completed or fully funded. The natural resources staff has increased from six to eighteen to meet natural resources stewardship,

***Proving that military training and stewardship are not conflicting but mutually beneficial, we have made tremendous progress toward natural resource conservation.***

***Planning level surveys for all 1.639 million acres have been completed or fully funded.***

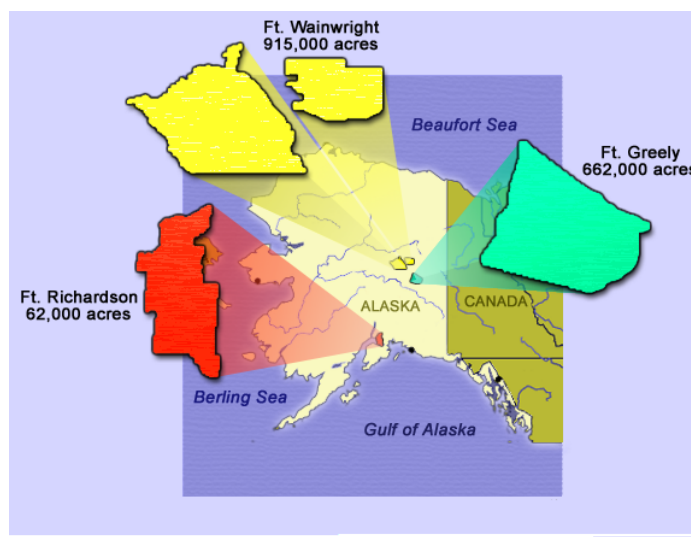
military mission, and compliance needs. BLM, Alaska Department of Fish and Game (ADF&G), and US Fish and Wildlife Service (USFWS) are now our stewardship partners. A five-year US Army Corps of Engineers (USACE) Section 404 wetland permit protects sensitive wetlands and makes over 543,000

acres available for summer maneuver training. Natural resources staff function as “observer-controllers” on all major exercises to help the military reduce unnecessary damage to the environment. The cleanup of Eagle River Flats Impact Area is reducing the incidence of white phosphorus poisoning to ducks. That area is now

open to winter artillery firing, and the goal of opening it year-round appears within reach. Proving that military training and stewardship are not conflicting but mutually beneficial, USARAK and the “Arctic Warrior” spirit have made tremendous progress toward natural resource conservation.

## Organization

USARAK is organized under a three post—one installation concept. USARAK garrison command, located at Fort Richardson, is responsible for installation management at Forts Richardson, Wainwright, and Greely. The staff is distributed across all three posts—ten at Fort Richardson, six at Fort Wainwright and two at Fort Greely. Three staff members at Forts Wainwright and Greely are located at Range Control, integrating the conservation program with range operations. Three installation directorates support natural resources management in USARAK. The Directorate of Public Works (DPW), Natural Resources Branch, oversees the conservation program, which comprises natural resources management, cultural resources management, Integrated Training Area Management (ITAM), and National Environmental Policy Act (NEPA) compliance. The Directorate of Plans, Training, Security, and Mobilization (DPTSM) Range Division is the interface between the Natural Resources Branch and soldiers training in the field. The Directorate of Personnel and Community Activities (DPCA) manages outdoor recreation.



**With Forts Wainwright and Greely in Alaska's interior and Fort Richardson in the south-central region, U.S. Army Alaska enjoys a full representation of Alaska's unique natural resources and environmental conditions.**

## Integrated Natural Resource Management Plan

USARAK completed its first INRMP in 1999, integrating stewardship with military readiness support while complying with environmental laws and improving quality of life. This was a cooperative effort, fully integrating BLM, ADF&G, and USFWS with public input during scoping and review. While not required under the Sikes Act, USARAK obtained BLM's full partnership as a signatory agency, and was the first DoD installation to do so. Signatory partners commit to fully supporting the implementation of the INRMP highlighting mutual responsibilities in natural resource management.

## Cooperators and Partners

USARAK's multiple-use approach to land management requires a conservation program built on partnerships. USARAK has achieved such partnerships, as shown below.

**Table 2. Stewardship Partners**

Agreement	Purpose
Bureau of Land Management, U.S. Fish and Wildlife Service, and ADF&G	Integrated natural resources management
Alaska Department of Natural Resources (ADNR) Plant Materials Center and ADNR State Historic Preservation Office	Maintain biodiversity and protect integrity of existing ecosystems; collect cultural resource data to support sound management
Soil and Water Conservation Districts	Prevent or mitigate soil erosion
Natural Resource Conservation Service	Planning level soil surveys
U.S. Forest Service	Forest pest protection
Cold Regions Research Lab, Environmental Protection Agency	Eagle River Flats cleanup and wildlife protection
ADNR Parks and Recreation, National Marine Fisheries Service, 11 <sup>th</sup> Air Force, BLM, USFWS	Encourage partnerships, cooperation and coordination of sustainable watchable wildlife opportunities
The Nature Conservancy	Cook Inlet Regional Ecosystem Management Legacy Project
Center for Ecological Management of Military Lands	Assist in optimal environmental management of military lands

## Program Summary

### Natural Resource Conservation Program Objectives

The conservation program lists five objectives to meet its goal to support the military mission in Alaska: *stewardship, military training and readiness support, compliance, quality of life, and integration*. During 1998–2000, USARAK exceeded these objectives because of innovative and creative solutions to overall conservation management, an emphasis on integration and partnerships, and a proactive approach to stewardship and military mission support while ensuring compliance. In addition, the ITAM program was recognized by the Department of the Army as a “model” program.

#### **Program Objectives**

- **Stewardship**
- **Military training and readiness support**
- **Compliance**
- **Quality of life**
- **Integration**



## Innovative Solutions

The Natural Resource Conservation Implementation Plan, approved in 1999, is a unique approach created by USARAK to implement a new management process for natural resources. Milestones include forming a conservation team, establishing the ITAM program, and increasing conservation funding. USARAK exceeded these milestones during 1998–2000.

### *Conservation Team*

During 1998–2000, our conservation program increased staffing, reorganized, and created a conservation management team. Our six-person staff (none in ITAM) grew to eighteen (five in ITAM) between 1995 and 2000. This team created and implemented a Conservation Workplan (derived from the INRMP) to track and execute projects and ensure completion of NEPA documentation and consultations. The addition of highly qualified and dedicated staff has been our keystone for innovation and success.



LCTA Field Crews

### *Integrated Training Area Management*

A leader in creative solutions, our ITAM program created superior methods for Land Condition Trend Analysis (LCTA) monitoring, which have since been copied by other DoD installations, including US Army Hawaii and Fort McCoy. Our *ITAM Handbook* was used as the basis for the Army's ITAM Pamphlet 350-4. We were chosen as the prototype for the Active/Inactive range inventory because of an outstanding and robust Geographic Information System (GIS). Our GIS data layers include wetlands, vegetation, soils, geology, transportation (roads), surface water, wildlife habitat, and topography. In 1999, USARAK created the Alaska Regional GIS Support Center to encourage integration between organizations and promote more efficient use of resources. This is funded by two main partners, DPW and DPTSM, and it supports Environmental, Conservation, ITAM, Master Planning, and 59<sup>th</sup> Signal (Information Management). The GIS Support Center is regional in scope, supporting the Alaska National Guard and the 11<sup>th</sup> Air Force at Elmendorf Air Force Base. Because of leadership in regional management and integration, USARAK was asked by the Department of the Army to brief the success of the ITAM program at the Army Worldwide Environmental and Energy Conference in 2000.

### *Funding*

Conservation program funding experienced great success during 1998–2000. The conservation portion of the Environmental Program Requirements was revamped to reflect actual requirements supported by the INRMP. INRMP projects were used to mitigate the Land Withdrawal Renewal Environmental Impact Statement (EIS) and the wetlands permit. Thus, implementation of the INRMP became a Class 1 or “must fund” requirement and was fully funded. The annual conservation “must fund” requirement increased from approximately \$350,000 to over \$3 million.

New funding sources were identified and utilized. For the first time, USARAK applied for and received funding from the DoD Forestry Reserve Account. A hunting permit system, approved in 2000, allows us to collect and use funds for fish and wildlife management activities. Funding was obtained from the US Forest Service (USFS) for forest pest suppression and from USFWS for streambank restoration. Cooperative funding with other directorates and programs (ITAM, DPTSM) also increased.

In 2000, USARAK conducted a cost-benefit analysis on the conservation program. Funding resulted in a greater than 1:1 return on investment, resulting in an average annual cost avoidance of \$500,000 to \$2,000,000 from fines and litigation, and an average annual cost savings of \$700,000 to \$1.5 million through reduced range, road, and vehicular maintenance costs; reduced lost-time accident costs; and less soldier time wasted.

## Accomplishments

### Overall Conservation Management

Completion of a Land Withdrawal Renewal EIS and a five-year Section 404 wetland permit illustrated innovative techniques, sound environmental management, excellent cooperation internal and external to USARAK, enhanced stewardship of natural resources, and steadfast support of the military mission.

#### *Land Withdrawal Renewal*

In 1999, we completed a Land Withdrawal Renewal EIS, the primary document required by Congress to renew the withdrawal of over 871,000 acres of military land in Alaska. Through public comment and negotiations with BLM, all INRMP and ITAM projects were included as mitigation for the land withdrawal renewal. Consequently, Congress enacted Public Law 106-65, renewing the land withdrawal of Yukon Training Area and most of Fort Greely for continued military use for 25 years.

#### *Five-Year Section 404 Wetland Permit*

In 1999, USARAK obtained a five-year Section 404 general wetland permit, unique in DoD for its magnitude and scope. It protects significant wetland habitat while enhancing the military mission by allowing recurring training activities in over 500,000 acres of low-function wetlands. The permit also allows us to train with minimal limitations while complying with the Clean Water Act. Because of the high percentage and dispersal of wetlands, plus the difficulty in identifying them, soldiers had difficulty training without impacting wetland areas. One winter exercise in 1998 brought this issue to the fore.

*During “Northern Edge 98,” engineer units plowing snow to clear roads and bivouacs inadvertently unearthed wetland soil and vegetation. USACE threatened to issue a Notice of Violation with a fine of over \$500,000. Through the efforts of the conservation staff, USACE chose not to fine USARAK, but they made it clear that one mistake was enough. Consequently, conservation staff pursued a wetland permit to allow recurring training activities in wetland areas while complying with the Clean Water Act and USARAK Range Regulation 350-2.*



**Five-year wetland permit protects sensitive and critical wetland habitat and at the same time increases usable training acreage.**

The application process required USARAK to work with USFWS, ADF&G, and USACE to address agency concerns of habitat protection, realistic estimates of annual damage done, and an open public review period.

Our LCTA monitoring program was redesigned from 1996–1998 to evaluate location, amount, and extent of disturbance across the landscape. This data, along with 1998 wetland planning level surveys, provided

a basis for calculating disturbed wetland acres. To further protect the environment, USARAK proposed using compliance and mitigation requirements from existing and enhanced programs.

The permit protects sensitive wetland habitat while increasing usable training acreage by over 500,000 acres. It also enables training in areas that were avoided in the past, allowing for more realistic training scenarios.

### ***Ecosystem Management***

USARAK has established landscape ecology and ecosystem approaches to land management. These approaches emphasize partnering with other agencies and establish a process for decision-making based on ecosystem management principles. Multiple-use concepts are applied across the landscape. Goals include the following:

- maintain biodiversity by creating and maintaining a habitat mosaic;
- establish a protocol to resolve land-use conflicts;
- identify inventory and monitoring requirements;
- establish project planning and management protocols; and
- create a process for regular INRMP updates.

Military training is incorporated into the framework by being modeled as a “species” with training habitat requirements. Each ecosystem management unit has a management prescription that defines compatible uses, prioritizes uses, defines public access needs, and delineates ecosystem management objectives. Prioritizing land uses for each management unit guides conflict resolution.

In 1999, USARAK and The Nature Conservancy implemented a regional ecosystem management Legacy project, “Prioritizing Conservation Strategies in the Cook Inlet Eco-region.” This project identifies threat abatement strategies at sites identified through an eco-regional assessment process currently underway to benefit our natural heritage and improve military readiness in Alaska. The Cook Inlet eco-region in south-central Alaska is one of the most biologically important areas in the US, containing irreplaceable habitat for bald eagles, beluga whales (proposed for federal listing), all five species of Pacific salmon, waterfowl, shorebirds, and brown bears. The Cook Inlet region, home of Fort Richardson and Elmendorf Air Force Base, supports over half the state's population in Anchorage and several other cities.

Because of its unique biological value and increasing threats, many groups have partnered to complete an eco-regional assessment to identify areas of biodiversity concentration. These areas will be the focus of work to abate threats to the area's natural heritage. The Nature Conservancy proposes to identify the key site-level strategies to ensure that species do not become further threatened or endangered. Partners include the US Air Force, National Park Service, USFWS, USFS, Municipality of Anchorage, and ADF&G.



**Habitat improvement projects benefit many species, including moose.**



## Land Use Management

Land management projects are vital to protecting wetlands, improving water quality, enhancing wildlife habitat, and improving training opportunities. Species benefited include moose, ruffed grouse, bison, and soldiers. Table 3 presents yearly totals of land management improvements conducted from 1998–2000.

**Table 3. Land Management Accomplishments on Fort Richardson, Fort Wainwright and Fort Greely**

Year	Acres Repaired	Acres Habitat Enhancement	Acres Wetlands Protected	Feet of Streambank Restoration
1998	119	51	337	0
1999	167	460	445	450
2000	99	170	380	0
<b>Total</b>	<b>385</b>	<b>681</b>	<b>1,162</b>	<b>450</b>

The Ship Creek streambank restoration project at Fort Richardson improved water quality, restored and stabilized the streambank, and enhanced salmon fry habitat. This major salmon spawning stream is a large water source for the Anchorage community. With a grant from USFWS, and guidance from ADF&G, we worked hand-in-hand with the Boy Scouts of America to complete the project.

The Gwen Lake bivouac area project at Fort Richardson protected wetlands, improved water quality, and enhanced training. This area is situated next to wetlands connected to Gwen Lake. Highly eroded, rutted trails within the area were hardened, and those that led into the wetlands were blocked off. Erosion control structures were built to protect the lake and wetlands.

The Manchu Lake project at Fort Wainwright improved and protected lakeside habitats and enhanced access to training areas. Due to years of use and little maintenance, road surfaces had eroded and compacted enough to allow the lake to overflow, blocking access around the lake to training areas beyond. USARAK obtained a Section 404 wetland permit to raise the roadbed and restore natural drainage patterns. We installed a culvert and fish weir so water could flow below the road and stocked lake species couldn't escape into Moose Creek.

## Forest Management

During 1998–2000, USARAK implemented its first forest management program. Funded by the DoD Forestry Reserve Account in 1999, we conducted a commercial forest market feasibility study concluding that there are over 380,000 acres of potential commercial forest. The goal of the project is to create a cost-effective tool to accomplish habitat improvement and ecosystem management objectives, not to make a profit.

### **Forest Management Accomplishments**

- **Commercial Forest Feasibility Assessment**
- **Forest Pest Control Project**

In 1999, USARAK received a grant from the USFS to combat the spruce bark beetle on Fort Richardson. This beetle, a significant forest pest in south-central Alaska, has killed over 5 million acres of mature spruce forests. USARAK sprayed over 2,500 mature spruce trees, slowing the spread of the pest.



**Swans and other waterfowl were protected through clean up of white phosphorus in the Eagle River Flats Impact Area.**

## Other Natural Resources

During 1998–2000, we provided recreation opportunities to improve quality of life for the military, their families, and the public. Hunting, fishing, and trapping use across all three posts remained fairly constant each year. Access opportunities have increased even with a drop in military population at Fort Greely due to Base Realignment and Closure. To increase recreational opportunities, we conducted recreational user surveys for feedback.

“Watchable Wildlife” viewing platforms erected along the Chena River on Fort Wainwright and overlooking the Delta River at Fort Greely have received significant use from the military and civilian communities.

## Fish and Wildlife

USARAK, Environmental Protection Agency, Alaska Department of Environmental Conservation, and the Cold Region Research Laboratory partnered to protect waterfowl through the cleanup of Eagle River Flats Impact Area. During 1998–2000, USARAK drained ponds, dried out the soil to oxidize white phosphorus, and refilled ponds to maintain waterfowl habitat. Monitoring survey results indicated that the incidence of white phosphorus poisoning was reduced significantly.

We provide the facilities for the state fish hatchery on Ship Creek. In return, ADF&G stocks 26 lakes for military and public recreational use. During 1998–2000, 314,984 fish were stocked in USARAK lakes.



**Viewing platforms provide wildlife viewing and natural resources education.**



**Interpretive panels installed on viewing platforms contribute to conservation education.**

## Conservation Education

Our conservation staff briefed over 1,200 military personnel on protecting the environment during training. In 2000, USARAK implemented a conservation enforcement program. Civilian conservation enforcement officers, replacing all military police game wardens, will enforce all natural resource and environmental laws while providing conservation education for military and non-military users of installation lands.

## Community Relations

USARAK improved community relations by helping develop a cooperative wildlife management plan titled “Living with Wildlife in Anchorage: A Cooperative Planning Effort.” The plan captured the results



**Boy Scouts participate in Arbor Day celebration.**

of a pioneering effort to help Anchorage residents and visitors co-exist with the diverse wildlife living in and around Anchorage. No other city of its size boasts the number and diversity of wild animals found throughout the Municipality of Anchorage, a point of pride to most residents and a major factor in their quality of life. Managing wildlife in an urban setting is both complicated and challenging. Numerous competing interests and serious safety concerns must be considered. This plan, which was led by the ADF&G, included cooperators from the Anchorage Audubon Society, Alaska Wildlife Alliance, Great Land Trust, Municipality of Anchorage, Chugach State Park, Elmendorf Air Force Base, and USFWS.

## Mission Enhancement and Natural Resources Compliance Program

USARAK’s efforts to enhance military training and readiness led to compliance with environmental laws. Conservation personnel participated in major exercises to help minimize damage and comply with environmental laws. The five-year wetland permit was obtained to support the Army’s remaining in compliance with the Clean Water Act. USARAK conducted many planning level surveys for the Land Withdrawal Renewal EIS, including surveys to identify endangered and threatened species, none of which have been found on USARAK lands.

### ***Mission Enhancement and Compliance Accomplishments***

- ***Conservation personnel participation as “observer-controllers” in major exercises.***
- ***Wetland permit for recurring training activities.***
- ***Implemented a program to clean-up trespass cabins on Fort Wainwright.***
- ***Implementing a new conservation law enforcement program.***

## Conclusion

USARAK’s natural resources conservation has improved dramatically in recent years. We obtained a five-year Section 404 general wetland permit, unique in DoD for its magnitude and scope, and successfully completed the Land Withdrawal Renewal EIS. We completed the first-ever INRMP for Alaska, aligned Environmental Program Requirements projects with requirements in the INRMP, identified those projects as mitigation for the land withdrawal renewal and wetlands permit, and exceeded program objectives by successfully implementing the INRMP. We effectively identified, planned, and executed 45 projects that targeted and reduced sources of erosion, improved 352 acres of military training sites, protected over 1,160 acres of wetlands, and enhanced 681 acres of wildlife habitat. We built new partnerships with federal, State, and local agencies, and private conservation organizations to pool expertise, plan on a larger scale, utilize limited resources, increase public involvement, and promote public access. US Army Alaska, the custodian of America’s “Last Frontier,” is a leader in military readiness and conservation of our natural resources.